ABSTRACT OF THE DISCLOSURE

A method and apparatus for measuring the concentration of at least one gaseous component and/or vaporous component of a gaseous mixture in which a controlled sensor flame is introduced into the gaseous mixture and at least one narrow spectral band in the controlled sensor flame is optically measured. The concentration of the gaseous component using a result obtained from the optical measuring of the at least one narrow spectral band is then calculated. The method of this invention is particularly suitable for substantially real-time control of combustion processes.